<div align="center">AMENDMENTS TO THE CLAIMS</div>

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS

1. (Currently Amended) An image reading device comprising:

an imaging device that has photo-diodes and a color filter provided on said imaging device, said color filter having color filter elements of a plurality of colors, said photo-diodes generating an original image data containing pixel data, each of the pixel data corresponding to one of said colors, wherein the color filter elements are arranged in a predetermined distribution;

a reading processor that reads said pixel data from said imaging device;

a thinning processor that thins out some of said pixel data to generate a thinned image data, each pixel in the thinned pixel data being separated from each other pixel by at least one pixel data, and colors of the thinned pixel data being arranged in said predetermined distribution; and

an interpolation processor that performs an interpolation process on said thinned image data to generate an interpolated image data for each of said colors, wherein said colors of said original image data are arranged in such a manner that a (m x m) matrix, formed by said plurality of colors, is repeated, and said thinning processor thins out (m x (n-1)) number of pixel data for every (m x (n-1)+1) number of pixel data in a horizontal direction and a vertical direction of an image corresponding to said original image data, wherein each of "m" and "n" is a positive integer greater than 1;

wherein, in the interpolation process, for each pixel a value is calculated based upon adjacent pixel data such that the adjacent pixel data are each multiplied by a weight coefficient, the resulting values are summed, and the sum is divided by a number of the adjacent pixel data.

2. (Canceled)

3. (Previously Presented) A device according to claim 1, wherein said colors of said original image data are arranged in such a manner that a (2 x 2) matrix, formed by said plurality of colors, is repeated, and said thinning processor thins out (2 x (n-1)) number of pixel data for every (2 x (n-1)+1) number of pixel data in a horizontal direction and a vertical direction of an image corresponding to said original image data.

4. (Original) A device according to claim 3, wherein said thinning processor thins out 2 pixel data for every 3 pixel data.

5. (Original) A device according to claim 3, wherein said thinning processor thins out 4 pixel data for every 5 pixel data.

6. (Previously Presented) A device according to claim 4, wherein said colors of said color filter elements are arranged in the Bayer arrangement.

7. (Previously Presented) A device according to claim 4, wherein said color filter has red filter elements, green filter elements and blue filter elements, and in said (2 x 2) matrix, said green filter elements are positioned on a diagonal line, and said red filter element and said blue filter element are positioned on another diagonal line.

8. (Original) A device according to claim 3, further comprising a reduction ratio setting processor that sets a reduction ratio that determines whereby the number of pixel data thinned out by said thinning processor.

9. (Original) A device according to claim 1, further comprising a reduced image indicating processor that forms a color image based on said interpolated image data and indicates said color image.

10. (Currently Amended) An image reading device in which pixel data of a first image, formed on an imaging device having an on-chip color filter of a plurality of colors, are point-sequentially read from said imaging device and subjected to an interpolation process to generate components of said plurality of colors for each of said pixel data to obtain a second image, said image reading device comprising:

a thinning processor that thins out some of said pixel data before said pixel data are subjected to said interpolation process, so that said second image is composed of a smaller number of pixels than said first image,

wherein each pixel in the thinned pixel data is separated from each pixel by at least one pixel data, and

wherein said colors of said original image data are arranged in such a manner that a (m x m) matrix, formed by said plurality of colors, is repeated, and said thinning processor thins out (m x (n-1)) number of pixel data for every (m x (n-1)+1) number of pixel data in a horizontal direction and a vertical direction of an image corresponding to said original image data, wherein each of "m" and "n" is a positive integer greater than 1;

wherein, in the interpolation process, for each pixel a value is calculated based upon adjacent pixel data such that the adjacent pixel data are each multiplied by a weight coefficient, the resulting values are summed, and the sum is divided by a number of the adjacent pixel data.

11. (Previously Presented) A device according to claim 5, wherein said colors of said color filter elements are arranged in the Bayer arrangement.

12. (Previously Presented) A device according to claim 5, wherein said color filter has red filter elements, green filter elements and blue filter elements, and in said (2 x 2) matrix, said green filter elements are positioned on a diagonal line, and said red filter element and said blue filter element are positioned on another diagonal line.

13. (Currently Amended) An image reading device comprising:

an imaging device for generating an original image;

a color filter affixed to the imaging device, wherein the color filter comprises color filter elements of a plurality of colors arranged in a predetermined (mxm) matrix pattern, wherein each color filter element comprises at least one pixel;

a thinning processor that thins out (mx(n-1)) number of pixels of the original image for every (mx(n-1)+1) number of pixels along each axis of the original image to generate a thinned image, wherein m and n are positive integers greater than 1, and wherein each pixel in the thinned image is separated from each other pixel by at least one pixel; and

an interpolation processor that interpolates the thinned image to generate an interpolated image for each of the plurality of colors, wherein for each pixel, a value is calculated based upon adjacent pixel data such that the adjacent pixel data are each multiplied by a weight coefficient, the resulting values are summed, and the sum is divided by a number of the adjacent pixel data.

14. (Previously Presented) The image reading device according to claim 13, wherein the matrix pattern comprises a Bayer arrangement.

15. (Previously Presented) The image reading device according to claim 13, wherein the color filter elements comprise red filter elements, green filter elements and blue filter elements.

16. (Previously Presented) The image reading device according to claim 15, wherein the green filter elements are positioned on a diagonal line, and the red filter elements and the blue filter elements are positioned on another diagonal.

17. (Previously Presented) The image reading device according to claim 13, further comprising a reduced image indicating processor that forms a color image based on the interpolated image and indicates the color image.

18. (Previously Presented) The image reading device according to claim 13, wherein the color filter comprises an on-chip filter.